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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/821,387	03/28/2001	Steve Wai Leung Yeung	25821P031	3593

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EXAMINER

BELL, PAUL A

ART UNIT

PAPER NUMBER

2675

DATE MAILED: 08/11/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/821,387	YEUNG, STEVE WAI LEUNG
	Examiner PAUL A BELL	Art Unit 2675

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on 24 May 2004.

2a) This action is FINAL.                            2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) 1-9 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1-9 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.

4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.

5) Notice of Informal Patent Application (PTO-152)

6) Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Chen (5,648,793).

With regard to claim 1 Chen teaches a method for driving an LCD (column 1, lines 5-8), comprising providing an LCD with a number of columns (figure 1(A) D1, D2, D3 and D4), providing an LCD with a number of rows (figure 1(A) G1,G2,G3 and G4), providing a number of pixels to said LCD (figure 1(A) P11, P12, P13 and P14), and driving the LCD by multiple inversion of one of a column, row and pixel, the inversion comprising applying an applied field polarity parameter by signals of the same polarity to two or more adjacent elements selected from the group column, row and pixel, (see figures 4(A), 4(B), 4(C) also SEE abstract "the **picture** elements in **adjacent** rows and/or **adjacent** columns are applied with signals of **opposite polarities**. **These polarities** are reversed for every other field of a **picture frame**" Note this is illustrated for rows in figure 4(B) which illustrate the two interlaced fields, which make up a "picture

frame" being field 1 and field 2. This is viewed as teaching that field 1 in frame 1 has a reversed polarity in relation to field 1 in frame 2. Also note how figure 7 illustrates the data signal D1 inverted in going from frame 1 to frame 2. ) to provide a reduced total fringe field effect to maintain contrast and a minimized flickering on a display (abstract "reduces flicker and cross-talk", column 2, line 59 - column 3, line 7).

With regard to claim 2 Chen teaches the method as defined in Claim 1, wherein the multiple inversions are adjustable (figures 4a, 4b and 4c).

With regard to claim 3 Chen teaches the method as defined in Claim 1, wherein there is a number of columns (m) which is any integer from two to the number of scan lines and wherein there is a number of rows (n) which is any integer from two to the number of column lines (inherent feature because a matrix is two or more).

With regard to claim 4 Chen teaches the method as defined in Claim 3, wherein there is an (n)-row inversion applied to a passively and an actively driven LCD, and wherein (n) is any integer from two to the number of scan lines (figures 1a show active case and since the lcd functions regardless of the driving method so passive is inherent).

With regard to claim 5 Chen teaches the method as defined in Claim 3, wherein there is an (m)-column inversion applied to an actively driven LCD, (m) being any integer from two to the number of column lines (figure 5).

With regard to claim 6 Chen teaches the method as defined in Claim 3, wherein there is an  $n \times m$ -pixel inversion in an actively driven LCD, where (n) is an integer from

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two to the number of scan lines and (m) is an integer from two to the number of column lines (figure 5).

With regard to claim 7 Chen teaches the method as defined in Claim 1, wherein said method is applied to one of an actively driven miniature TFT LCD and a reflective liquid crystal on silicon LCD (figure 1a).

With regard to claim 8 Chen teaches the method as defined in Claim 1, wherein there is simultaneous inversion of one of a plurality of columns, rows or pixels of an LCD (figure 4a, 4b, and 4c).

With regard to claim 9 Chen teaches the method as defined in Claim 8, wherein said plurality comprises two (figure 5).

3. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Hirakata (6,496,172).

With regard to claim 1 Hirakata teaches a method for driving an LCD (column 1, lines 9-15 ), comprising providing an LCD with a number of columns, providing an LCD with a number of rows , providing a number of pixels to said LCD (figure 3a ), and driving the LCD by multiple inversion of one of a column, row and pixel, the inversion comprising applying an applied field polarity parameter by signals of the same polarity to two or more adjacent elements selected from the group column, row and pixel, ( figures 17a, 20a, 20b ) to provide a reduced total fringe field effect to maintain contrast and a minimized flickering on a display (abstract )

#### ***Response to Arguments***

4. Applicant's arguments filed 5/24/2004 have been fully considered but they are not persuasive.

The applicant argues with regard to claim 1 that Chen does not teach "The driving method illustrated in applicants figures 16 to 18. With the multiple inversion method and by applying signals of the same polarity to two or more adjacent elements selected from the column, row and pixel, flicking in the fringe field effect observed in LCD's is overcome."

The examiner disagrees because Chen in figures 4a-c illustrates an interlaced scanning in which scanning lines of one picture (one frame) are divided into two fields wherein the 1<sup>st</sup> field is the odd field made up of lines 1, 3, 5, and 7 and the 2<sup>nd</sup> field is the even field made up of lines 2, 4, 6, and 8. Now when the odd field is integrated with the even field to form a frame the column in fig 4B would look like this + - - + + - - + + - - + and this reads on claim language.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "multiple inversions is applied to two or more adjacent column, rows or pixel frames" note you crossed out this limitation) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "inversion is applied for two (or more) consecutive frames" note you crossed out this limitation) are not recited in the rejected claim(s). Although the claims are

interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

#### Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Bell whose telephone number is (703) 306-3019.

If attempts to reach the examiner by telephone are unsuccessful the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377 can help with any inquiry of a general nature or relating to the status of this application.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

Or Faxed to: (703) 872-9314 (for Technology Center 2600 only)

Or Hand-delivered to: Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

*Paul Bell*  
Paul Bell  
Art unit 2675  
August 3, 2004

*Chanh Nguyen*  
CHANH NGUYEN  
PRIMARY EXAMINER